What is claimed is:

1. A method for forming a single crystalline film comprising the steps of:

forming an amorphous film on a single crystalline substrate,

forming an opening in the amorphous film and thereby exposing a part of a surface of the substrate, and

introducing atomic beams, molecular beams or chemical beams onto the surface of the substrate at their incident angle of not more than 40 degrees with respect to the substrate surface under a reduced atmosphere and thereby selectively and epitaxially growing a single crystalline film on the exposed surface of the substrate.

2. A method for forming a single crystalline film as defined in claim 1, wherein the atomic beams, the molecular beams or the chemical beams are introduced at their incident angle of not more than 25 degrees.

3. A method for forming a single crystalline film as defined in claim 1, wherein atomic beams composed of group V elements in the periodic table, molecular beams or chemical beams containing groupV elements in the periodic table are introduced onto the surface of the single crystalline substrate at their incident angle of not more than 40 degrees and atomic beams composed of group III elements in the periodic table, molecular beams or chemical beams containing III group elements in the periodic table are introduced onto the surface of the single crystalline substrate at their any incident angles, and thereby a single crystalline film made of a III-V semiconductor compound is selectively and epitaxially grown on the exposed surface of the substrate.

4. A method for forming a single crystalline film as defined in claim 3, wherein the atomic beams composed of group V elements in the periodic table, the molecular beams or the chemical beams containing group V elements in the periodic table are introduced at their incident angle of not more than 25 degrees.

5. A method for forming a single crystalline film as defined in claim 1, wherein atomic beams composed of group III elements in the periodic table, molecular beams or chemical beams containing group III elements in the periodic table are introduced onto the surface of the single crystalline substrate at their incident angle of not more than 40 degrees and atomic beams composed of group V elements in the periodic table, molecular beams or chemical beams containing group V elements in the periodic table are introduced onto the surface of the single crystalline substrate at their any incident angles, and thereby a single crystalline film made of a III-V semiconductor compound is selectively and epitaxially grown on the exposed surface of the substrate.

6. A method for forming a single crystalline film as defined in claim 5, wherein the atomic beams composed of group III elements in the periodic table, the molecular beams or the chemical beams containing group III elements in the periodic table are introduced at their incident angle of not more than 25 degrees.

7. A method for forming a single crystalline film as defined in claim 1, wherein atomic beams composed of group VI elements in the periodic table, molecular beams or chemical beams containing group VI elements in the periodic table are introduced onto the surface of the single crystalline substrate at their incident angle of not more than 40 degrees and atomic beams composed of group II elements in the periodic table, molecular beams or chemical beams containing group II elements in the periodic table are introduced onto the surface of the single crystalline substrate at their any incident angles, and thereby a single crystalline film made of a II-VI semiconductor compound is selectively and epitaxially grown on the exposed surface of the substrate.

8. A method for forming a single crystalline film as defined in claim 7, wherein the atomic beams composed of group VI elements in the periodic table, the molecular beams or the chemical beams containing group VI elements in the periodic table are introduced at their incident angle of not more than 25 degrees.

9. A method for forming a single crystalline film as defined in claim 1, wherein atomic beams composed of group II elements in the periodic table, molecular beams or chemical beams containing group II elements in the periodic table are introduced onto the surface of the single crystalline substrate at their incident angle of not more than 40 degrees and atomic beams composed of group VI elements in the periodic table, molecular beams or chemical beams containing group VI elements in the periodic table are introduced onto the surface of the single crystalline substrate at their any incident angles, and thereby a single crystalline film made of a II-VI semiconductor compound is selectively and epitaxially grown on the exposed surface of the substrate.

10. A method for forming a single crystalline film as defined in claim 9, wherein the atomic beams composed of group II elements in the periodic table, the molecular beams or the chemical beams containing group II elements in the periodic table are introduced at their incident angle of not more than 25 degrees.

11. A method for forming a single crystalline film as defined in any one of claims 1 to 10, wherein the opening has a linear shape and has a width of 0.001 μm to 10 μm.

12. A method for forming a single crystalline film as defined in any one of claims 1 to 10 wherein the amorphous film is made of an insulating material or a high melting point-metal.

13. A method for forming a single crystalline film as defined in any one of claims 1 to 10, wherein the single crystalline film is epitaxially grown, from the single crystalline film as a seed which is selectively and epitaxially grown on the exposed surface of the substrate, in a lateral direction parallel to the surface of the substrate on the amorphous film.

14. A method for forming a single crystalline film as defined in claim 13, wherein the single crystalline film formed on the amorphous film has a dislocation density of not more than $10^4/cm^2$.

15. A method for forming a single crystalline film as defined in claim 14, wherein lattice constants of the single crystalline substrate and the single crystalline film are different from each other.

16. A method for forming a single crystalline film as defined in claim 15, wherein a difference in lattice constant between the single crystalline substrate and the single crystalline film is 0.1% to 30%.